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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/791,579	03/02/2004	Mohammad H.S. Amin	240105.419C2	6155
500 7590 08/06/2007 SEED INTELLECTUAL PROPERTY LAW GROUP PLLC 701 FIFTH AVE SUITE 5400 SEATTLE, WA 98104			EXAMINER ARENA, ANDREW OWENS	
			ART UNIT 2811	PAPER NUMBER
			MAIL DATE 08/06/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**Office Action Summary**

Application No.

10/791,579

Applicant(s)

AMIN ET AL.

Examiner

Sara W. Crane

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 02 May 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 53-70 is/are pending in the application.
- 4a) Of the above claim(s) 67-70 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 53-59 is/are allowed.
- 6) ☒ Claim(s) 60, 65 and 66 is/are rejected.
- 7) ☒ Claim(s) 61-64 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>4-6-2007</u>  | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

Applicant's election with traverse of claims 53-66 in the reply filed on 5/2/2007 is acknowledged. The traversal is on the ground(s) that Figure 13 is generic. This is not found persuasive because the requirement for election was based on different species as claimed, rather than as disclosed. Applicant argues in addition that there would be no burden in the search for both device and method. Burden is shown by the different searches involved in structure and method, by the scope of the search required in either case, and by the different text terms requirement for a key word search. (Note that the claims are drawn to "qubits," with no structural features identifying what sort of qubits, so that the claims are difficult to classify into the PTO classification system, which is based primarily on structural features.)

The requirement is still deemed proper and is therefore made FINAL.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 60, 65 and 66 are rejected under 35 U.S.C. 103(a) as being unpatentable over Newns et al..

With respect to claim 60, the reference teaches in for example figures 4 and 5 an array of qubits (column 3, line 12), for quantum computing (title), having rows and columns. Column 6, lines 25-35, notes that computing requires actuation of sensor

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loops, and readout as well, which utilizes current. It would have been obvious to provide a system configured to provide readout or initialization current, for the array of Newns et al., in order to implement a functional computing system as desired by the reference. With respect to claims 65 and 66, initialization or readout means for an entire column would have been obvious, because ordinary memory arrays, not involving qubits, for example, function in this manner.

***Allowable Subject Matter***

Claims 53-59 are allowed. Claims 61-64 would be allowable if expressed in completed form, including all of the limitations of the base claim and any intervening claims. The combination of features as set forth in these claims, including the grounding switches having the structure and function as recited, was not found in the prior art.

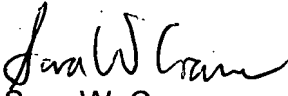
Any inquiry concerning this communication or earlier communications from the examiner should be directed to S. Crane, whose telephone number is (571) 272-1652.

The SPE for Art Unit 2811 is Lynne Gurley, who can be reached at 571 272-1670. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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Sara W. Crane  
Primary Examiner  
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